

complied, which provides the user with an immediate indication of how the composition of the selected soundtracks will sound as the audio during creation.

In one implementation, soundtracks are mixed by selecting and deselecting combinations of soundtracks, in any order, which are mixed dynamically upon selection and unmixed upon de-selection until the user complies a satisfying combination of soundtracks, which may include different sound effects discussed more fully below. The mix may be saved or discarded upon completion of the selection exercise.

In FIG. 2, a first soundtrack is played upon selection at 210, then a while the first soundtrack is playing a second soundtrack is played along with the first sound track upon selection of the second soundtrack at 220, etc. The selected soundtracks may also be deselected while playing up re-selecting the same sound track, for example by re-selecting the first soundtrack at 210. The process of selecting and deselecting soundtracks continues in no particular order until an appealing combinations of sound are mix, whereupon the user may save the mix at block 230, as discussed more fully below.

According to the process illustrated in FIG. 2, several soundtracks may be mixed, for example a first soundtrack is selected and played, and then a second soundtracks is selected and played with the first soundtrack while the first soundtrack is playing, and then a third soundtrack is selected and played while the first and second soundtracks are playing, etc. Any one or more of the selected soundtracks, for example the first soundtrack, may subsequently be subtracted from the mix, while the mix is playing, for example by de-selecting the first soundtrack. Alternatively, all of the selected soundtracks may be deselected simultaneously.

In one embodiment, a first soundtrack is selected from a first plurality of soundtracks, and a second soundtrack is selected from a second

plurality of soundtracks. Additional soundtracks may be combined, or mixed, with the first and second tracks, as desired.

In one embodiment, at least one of the soundtracks is a base, or reference, soundtrack selected from a plurality of different base soundtracks. In a preferred embodiment, the reference soundtrack is selected before selecting any other soundtracks. Thereafter, one or more soundtracks are selected subsequently and mixed dynamically while the reference soundtrack and any other selected soundtracks are playing. Other embodiments are devoid of a base soundtrack.

The plurality of different reference soundtracks, for example, may be characterized generally by corresponding rhythmic and harmonic characteristics, for example those associated with Jazz, Rhythm & Blues, Soul, Rock, Latin, and Classical and Big Band, among other types of music, respectively.

Some of the soundtracks may be selected from a group of soundtracks having corresponding melodies. In one implementation, a melodic soundtrack is selected from a plurality of musical instruments soundtracks, for example, from either a percussion, or wind, or string instrument soundtrack. In another embodiment, each melodic soundtrack has corresponding variations. For example, upon selection of a "piano" soundtrack, there may be several piano soundtrack variation sub-selections among which to choose.

In embodiments where there is a ~~reference~~ soundtrack, the instrument or melodic soundtracks available for selection may be dependent upon, or specific to, the reference soundtrack selected. Where Rhythm & Blues is selected as the reference track, for example, the instrument soundtracks available may be piano, drum, bass and horn and corresponding variations thereof. Where the reference soundtrack is Rock, different instrument soundtracks and corresponding variations are available.

In another embodiment, an audio characteristic or effect is selected for a selected soundtrack while playing the soundtrack. Exemplary sound effects include echo and reverberation, among others. De-selection of a soundtrack for which one or more effects have been selected, also de-selects the corresponding effects.

The audio characteristic of the soundtrack is changed while the soundtrack is playing upon selecting the audio characteristic, thus providing the user with an immediate indication of how the selected characteristic affects the soundtrack as the polyphonic file is created. After selecting a soundtrack, a sound characteristic, or effect, for the selected soundtrack is selected and played. Generally more than one global effect may be changed or selected. Selection and de-selection of effects are also illustrated in FIG. 2.

In some embodiments, a global audio characteristic common to all of the selected soundtracks is selected and played while playing the selected soundtracks, thus changing the audio characteristic of all of the selected soundtracks while the soundtracks are playing. Generally more than one global effect may be changed or selected.

In some embodiments, the number of soundtracks selected is limited, for example to 4 or 5 soundtracks, for example the user may have the option of selecting one of three variations on as many as five different instruments. The user may also have the option of selection 1 or 2 or more track-specific sound effects, and 1 or 2 or more global sound effects applicable to all tracks.

Generally, the soundtracks and effects are made perceptible to a user of the handheld device, for example the soundtracks may be displayed or played audibly for selection by the user. In one embodiment, the soundtracks and effects are stored on the handheld device, and in another embodiment the soundtracks